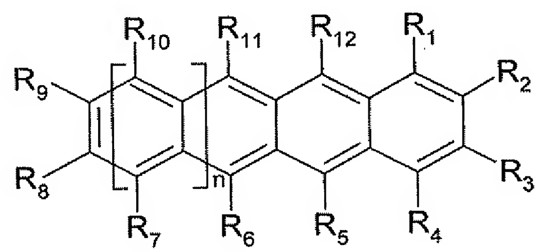
The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An organic semiconducting layer formulation, comprising an organic binder which has a permittivity, ε, at 1,000 Hz of 3.3 or less; and a polyacene compound of Formula A or of Formula 9A:



Formula A

wherein:

each of R_1, R_2, R_3, R_4, R_5, R_6, R_7, R_8, R_9, R_{10}, R_{11} and R_{12}, which may be the same or different, independently represents hydrogen; an optionally substituted C_1-C_{40} carbyl or hydrocarbyl group; an optionally substituted C_1-C_{40} alkoxy group; an optionally substituted C_6-C_{40} aryloxy group; an optionally substituted C_7-0_{40} alkylaryloxy group; an optionally substituted C_2-C_{40} alkoxycarbonyl group; an optionally substituted C_7-C_{40} aryloxycarbonyl group; a cyano group (-CN); a carbamoyl group (-C(=O)NH_2); a haloformyl group (-C(=O)-X, wherein X represents a halogen atom); a formyl group (-C(=O)-H); an isocyano group; an isocyanate group; a thiocyanate group or a thioisocyanate group; an optionally substituted amino group; a hydroxy group; a nitro group; a CF_3 group; a halogen group; or an optionally substituted silyl group;

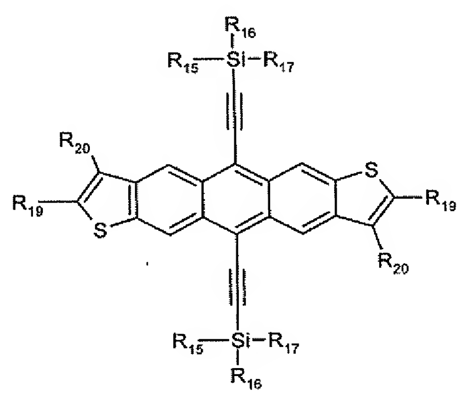
wherein independently each pair of R_2 and R_3 and/or R_8 and R_9, may be cross-bridged to form a C_4-C_{40} saturated or unsaturated ring, which saturated or unsaturated ring may be intervened by an oxygen atom, a sulphur atom or a group shown by formula -N(R_a)- (wherein R_a is a hydrogen atom or an optionally substituted hydrocarbon group), or may optionally be substituted;

wherein one or more of the carbon atoms of the polyacene skeleton may optionally be substituted by a N, P, As, O, S, Se or Te atom; and wherein independently any two or more of the substituents R_1-R_{12} which are located on adjacent ring positions of the polyacene may, together, optionally constitute a further C_4-C_{40} saturated or unsaturated ring optionally interrupted by O, S or -N(R_a) where R_a is as defined above) or an aromatic ring system, fused to the polyacene;

at least one of R_1 to R_{12} is an optionally substituted C_2-C_{40} hydrocarbyl group that is a saturated or unsaturated acyclic group, or a saturated or unsaturated cyclic group, and

n is ~~0,~~ 1, 2, 3 or 4,

or

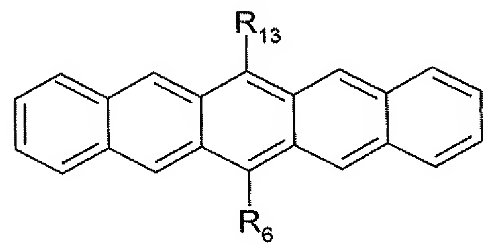


Formula 9A

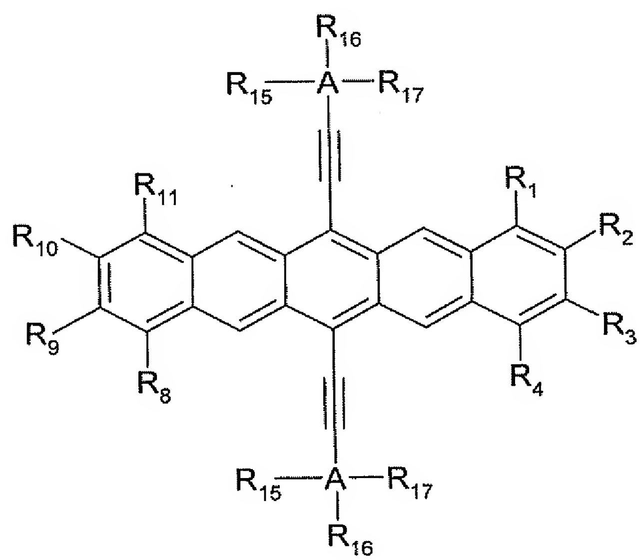
wherein
R_{19} and R_{20} each independently is an optionally substituted, optionally unsaturated C_{1-40} carbyl or hydrocarbyl group,
or R_{19} and R_{20} either together with the carbon atoms to which they are attached or independently in combination with a substituent on a suitably adjacent atom form an optionally substituted C_4-C_{40} saturated or unsaturated ring optionally interrupted by one or more oxygen or sulphur atoms or a group represented by Formula –N(R_a), wherein R_a is a hydrogen atom or a hydrocarbon group,
or R_{19} and R_{20} are the same substituent and comprise hydrogen or a saturated or unsaturated

$C_{1\text{-}4}$-alkyl group,
R_{15}, R_{16}, R_{17} are the same or different and are as defined in claim 1, and one or more of the ring positions on the compound is optionally substituted.

2. (Previously Presented) An organic semiconducting layer formulation as claimed in claim 1, wherein the polyacene compound is a compound of formula B or 8 or an isomer thereof



Formula B



Formula 8

wherein, R_6 and R_{13} in the compound of formula B and R_1, R_2, R_3, R_4, R_8, R_9, R_{10}, R_{11}, R_{15}, R_{16}, and R_{17} in the compound of formula 8 are each independently the same or different and

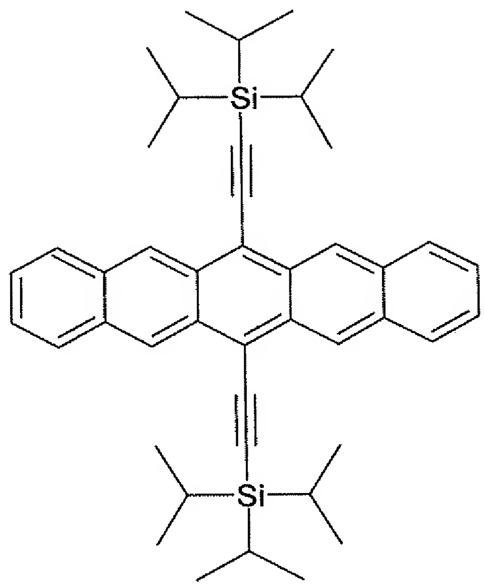
each independently represents: H; an optionally substituted C_1-C_{40} carbyl or hydrocarbyl group; an optionally substituted C_1-C_{40} alkoxy group; an optionally substituted C_6-C_{40} aryloxy group; an optionally substituted C_7-C_{40} alkylaryloxy group; an optionally substituted C_2-C_{40} alkoxycarbonyl group; an optionally substituted C_7-C_{40} aryloxycarbonyl group; a cyano group (-CN); a carbamoyl group (-C(=O)NH2); a haloformyl group (-C(=O)-X, wherein X represents a halogen atom); a formyl group (-C(=O)-H); an isocyano group; an isocyanate group; a thiocyanate group or a thioisocyanate group; an optionally substituted amino group; a hydroxy group; a nitro group; a CF_3 group; a halogen group; or an optionally substituted silyl group; and wherein independently each pair of R_1 and R_2, R_2 and R_3, R_3 and R_4, R_8 and R_9, R_9 and R_{10}, R_{10} and R_{11}, R_{15} and R_{16} and R_{16} and R_{17} may be cross-bridged with each other to form a C_4-C_{40} saturated or unsaturated ring, which saturated or unsaturated ring may be intervened by an oxygen atom, a sulphur atom or a group shown by formula: -N(R_a)- (wherein R_a is a hydrogen atom or a hydrocarbon group), or may optionally be substituted; and wherein A represents Silicon or Germanium.

3. (Currently Amended) An organic semiconducting layer formulation as claimed in claim 1, which contains a compound of Formula 9A ~~wherein n is 0 or 2~~.

4. (Currently Amended) An organic semiconducting layer formulation as claimed in claim 3, which contains a compound of Formula A, wherein n is 2.

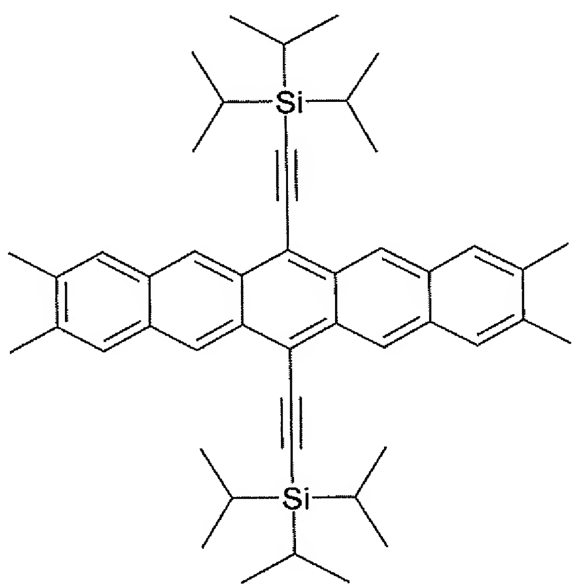
5. (Previously Presented) An organic semiconducting layer formulation as claimed in claim 1, wherein two or more of R_1 to R_{12} are optionally substituted C_1-C_{40} hydrocarbyl groups, each of which is a saturated or unsaturated acyclic group, or a saturated or unsaturated cyclic group.

6. (Previously Presented) An organic semiconducting layer formulation as claimed in claim 28, wherein the polyacene compound is 6, 13-bis(triisopropylsilylethynyl)pentacene of Formula 1,



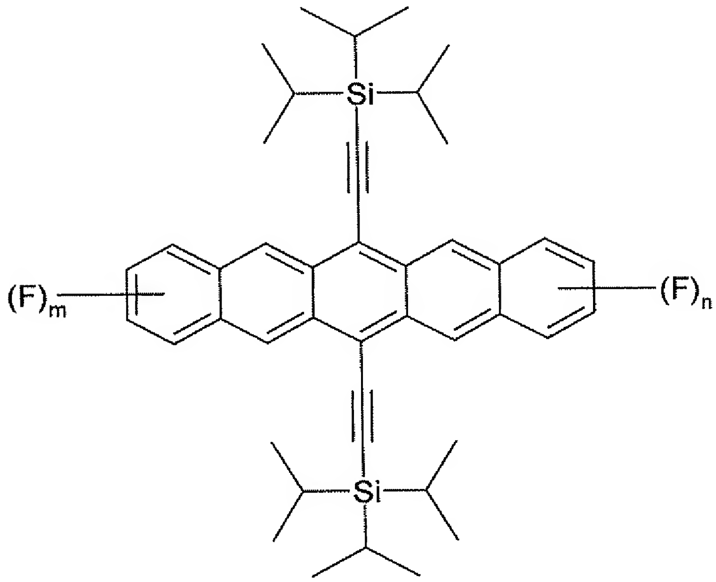
Formula 1.

7. (Previously Presented) An organic semiconducting layer formulation as claimed in claim 28, wherein the polyacene compound is 2,3,9,10-tetramethyl,6,13-bis (triisopropylsilylethynyl)pentacene of Formula 2:



Formula 2.

8. (Previously Presented) An organic semiconducting layer formulation as claimed in claim 28, wherein the polyacene compound is of Formula 3:



Formula 3

wherein n and m are each independently 0,1, 2, 3 or 4.

9. (Previously Presented) An organic semiconducting layer formulation as claimed in claim 1, wherein the organic binder resin has a permittivity at 1,000 Hz of less than 3.0.

10. (Previously Presented) An organic semiconducting layer formulation as claimed in claim 10, wherein the organic binder resin has a permittivity at 1,000 Hz greater than 1.7.

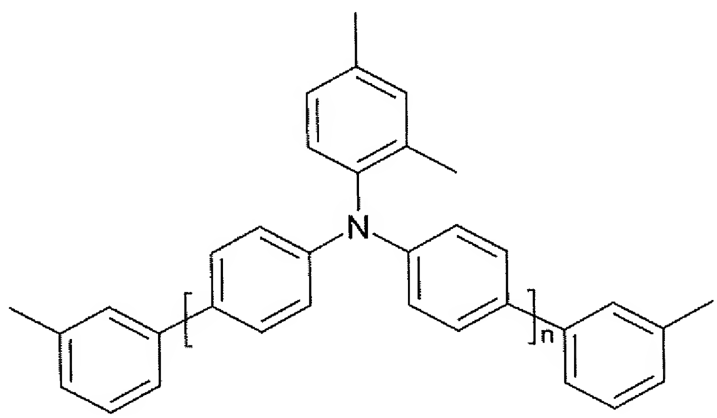
11. (Previously Presented) An organic semiconducting layer formulation as claimed in claim 1, wherein the organic binder resin is an insulating binder.

12. (Previously Presented) An organic semiconducting layer formulation as claimed in claim 11, wherein the insulating binder is poly(α-methylstyrene), polyvinylcinnamate, poly(4-vinylbiphenyl), poly(4-methylstyrene) or linear olefin and cycloolefin(norbornene)copolymer.

13. (Previously Presented) An organic semiconducting layer formulation as claimed in claim 1, wherein the organic binder resin is a semiconductor binder.

14. (Previously Presented) An organic semiconducting layer formulation as claimed in claim 13, wherein the semiconductor binder comprises a number average molecular weight (M_n) of at least 1500-2000.

15. (Previously Presented) An organic semiconducting layer formulation as claimed in claim 13, wherein the semiconductor binder is poly(9-vinylcarbazole) or a triarylamine compound of the following formula



wherein n=10.7.

16. (Previously Presented) An organic semiconducting layer formulation as claimed in claim 1, wherein the formulation further comprises a solvent.

17. (Previously Presented) An organic semiconducting layer formulation as claimed in claim 16, wherein the solvent is xylene(s), toluene, tetralin or odichlorobenzene.

18. (Previously Presented) An organic semiconducting layer formulation as claimed in claim 1, wherein the ratio of polyacence compound to binder is 20:1 to 1:20 by weight.

19. (Previously Presented) An organic semiconducting layer formulation as claimed in claim 1, which has a solids content of 0.1 to 10% by weight.

20. (Previously Presented) A process for preparing an organic semiconducting layer formulation as claimed in claim 1, comprising (i) depositing on a

substrate a liquid layer of a mixture which comprises the polyacene compound, the organic binder resin or precursor thereof and optionally a solvent, and (ii) forming from the liquid layer a solid layer which is the organic semiconducting layer.

21. (Previously Presented) In an electronic device, wherein the improvement comprises the presence of an organic semiconducting layer formulation as claimed in claim 1 in said electronic device.

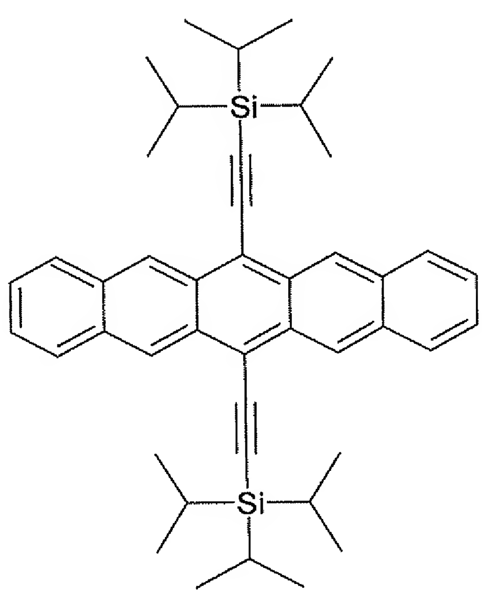
22. (Previously Presented) A field effect transistor (FET), organic light emitting diode (OLED), photodetector, chemical detector, photovoltaic cell (PVs), capacitor sensor, logic circuit, display or memory device, comprising an organic semiconducting layer formulation as claimed in claim 1.

23. (Previously Presented) An OFET device, comprising an organic semiconducting layer formulation, wherein the organic semiconducting layer formulation comprises:

a compound of Formula 1;

a binder; and

solvent,



Formula 1

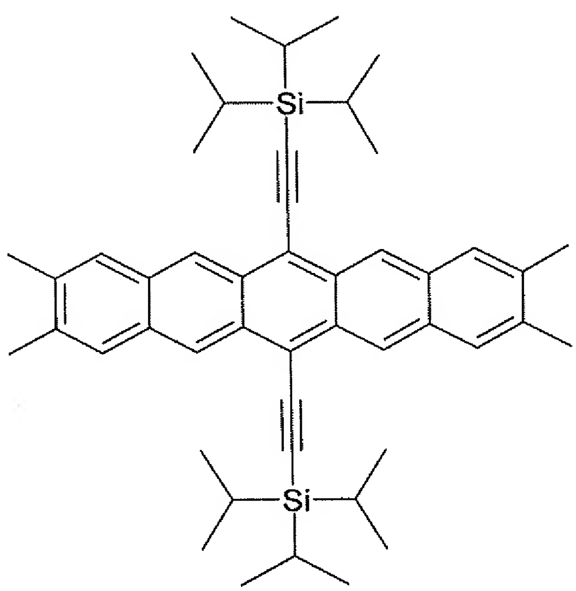
wherein the binder is poly(α-methylstyrene), linear olefin and cycloolefin(norbornene)copolymer, poly(4-methylstyrene), polystyrene or polystyrene-co-α-methylstyrene; and the solvent is toluene, ethylcyclohexane, anisole or pxylene.

24. (Previously Presented) An OFET device, comprising an organic semiconducting layer formulation, wherein the organic semiconducting layer formulation comprises:

a compound of Formula 2;

a binder; and

solvent,



Formula 2

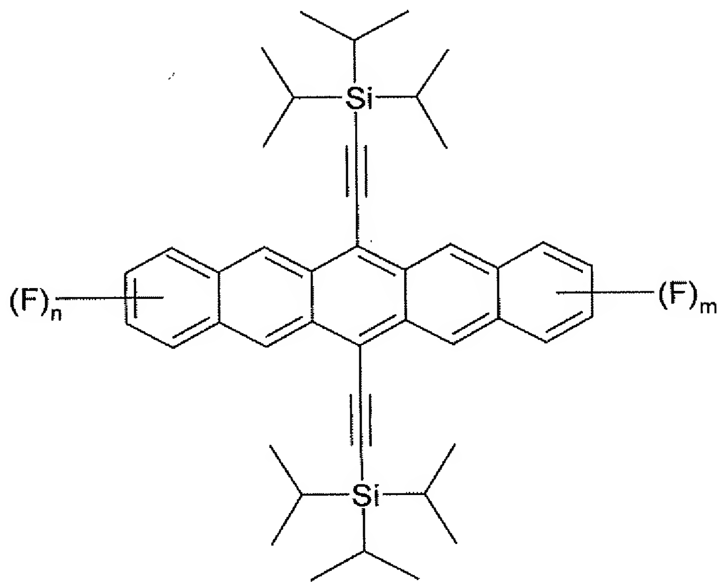
wherein the binder is poly(α-methylstyrene), polyvinylcinnamate, or poly(4-vinylbiphenyl); and the solvent is 1,2-dichlorobenzene.

25. (Previously Presented) An OFET device, comprising an organic semiconducting layer formulation, wherein the organic semiconducting layer comprises:

a compound of Formula 3;

a binder; and

a solvent,

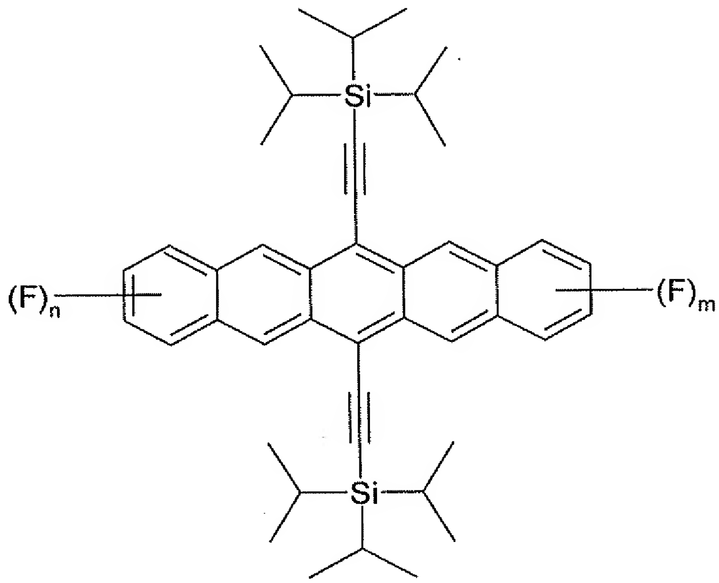


Formula (3)

wherein :

n and m are each independently 0,1, 2, 3 or 4; the binder is poly(α-methylstyrene); and the solvent is toluene.

26. (Previously Presented) A compound of Formula 3



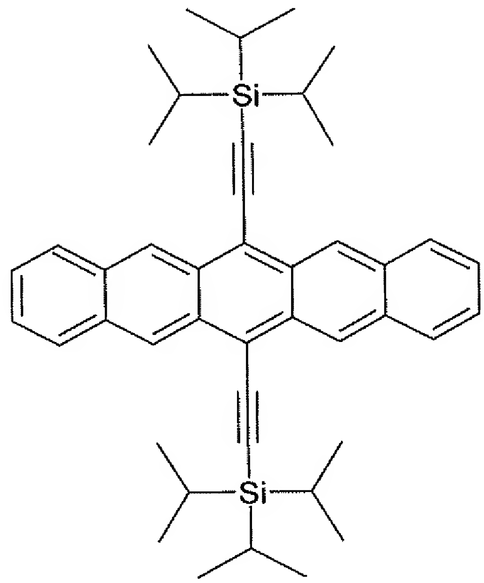
Formula (3)

wherein n and m are each independently 1 or 3.

27. (Previously Presented) An organic semiconducting layer formulation as claimed in claim 1, wherein the halogen group is Cl, Br or F.

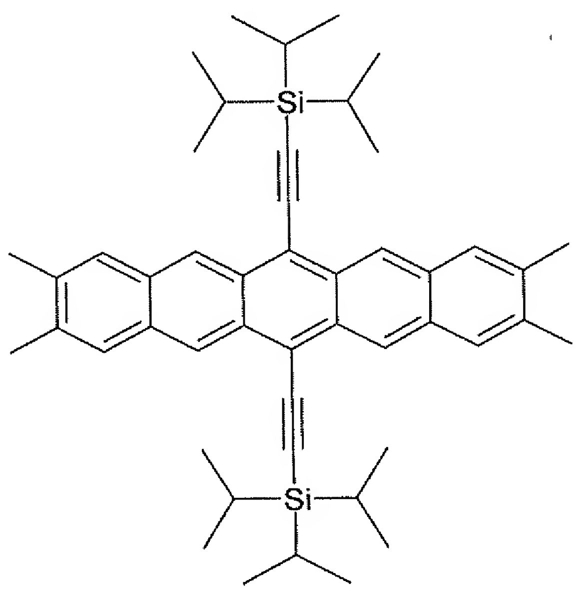
28. (Previously Presented) An organic semiconducting layer formulation, comprising an organic binder which has a permittivity, ε, at 1,000 Hz of 3.3 or less; and a polyacene compound which is

a) 6, 13-bis(triisopropylsilylethynyl)pentacene of Formula 1,



Formula 1;

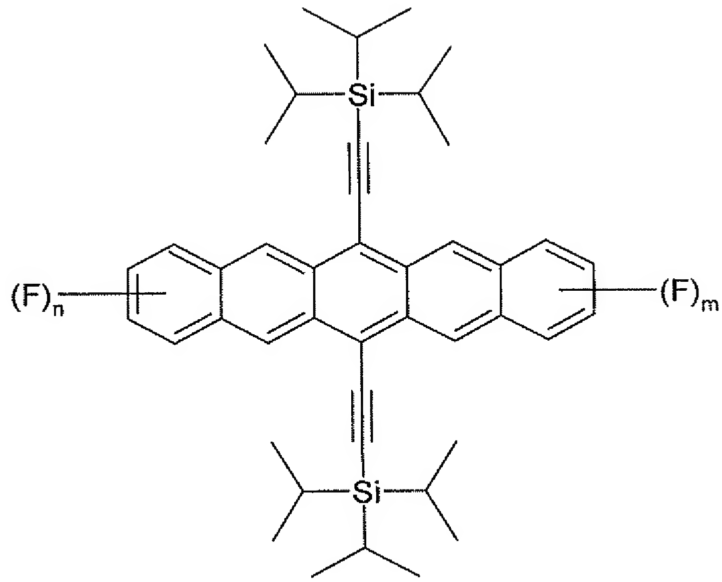
b) 2,3,9,10-tetramethyl,6,13-bis (triisopropylsilylethynyl)pentacene of Formula 2:



Formula 2;

or

c) of Formula 3:



Formula 3

wherein n and m are each independently 0,1, 2, 3 or 4.